



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

Memorandum

Subject: Annual Monitoring Network Plans

From: Matthew Lakin, Chief  
Air Quality Analysis Office, Air Division, Region 9

To: Region 9 Air Pollution Control Agencies

This document outlines the information that is required to be submitted to EPA Region 9 as part of the Annual Monitoring Network Plans due ~~annually~~ by July 1<sup>st</sup> of each year. We thank you for the time and attention you pay each year while developing these documents. The plans allow the public and EPA to understand your monitoring network, and provide an opportunity for agencies to reflect on their existing networks.

Over the years, many agencies have refined their plans and added information to create a more comprehensive picture of their monitoring networks. Recently, it has become apparent that a lack of detail in these network plans may result in legal vulnerabilities. Lack of information sufficient to determine network adequacy compliance with 40 CFR Part 58.10 may therefore result in EPA's disapproval of all or a portion of a plan. Given this new attention to network plans, we thought it appropriate to send an update to EPA Region 9's "Annual Monitoring Network Plan for 2007" memo. This updated memo provides information reflecting changes in regulation since 2007, and highlights plan elements that are not always addressed to the desired level of detail. We recognize that this memo is being sent only a few months before plans are due, and that agencies typically produce plans well ahead of July 1<sup>st</sup> in order to provide time for internal review and public notice and comment. We hope that you will be able to address the elements noted in this memo this year in your plans submitted this year, and will ~~be looking for~~ expect that all elements ~~to be~~ will be addressed next year in plans submitted in 2013.

In addition, an Annual Monitoring Network Plan template and CFR Elements appendix are attached. The template provides an optional network plan format that incorporates elements required to be included in network plans, including an example detailed site information table that includes required site-level information. State and local agencies are not required to follow this exact format, but must ensure that their network plans cover all required information outlined in the template and the appendix. EPA strongly encourages all agencies to, at a minimum, include the tables suggested in the template. The appendix provides the regulatory basis for the annual network plan. Agencies are also encouraged to include any additional information that describes their air ambient air monitoring network.

**Comment [KH1]:** Or we could cite Appendices A, C, D and E. I think saying network adequacy introduces a term we're not ready to define. I think we've said to CARB that we don't expect new information for network adequacy in terms of proving high concentration sites or other network distribution elements.

## Specific Section Notes

EPA has noticed that the following plan elements are not always addressed to the desired level of detail:

- Minimum Monitoring Requirements. Agencies should provide the information detailed in the attached table, including information on design values and CBSAs/MSAs.
- Collocation. It is often difficult to tell from reading network plans whether collocation requirements are being met. See attachments for collocation requirements and suggestions for how to address these requirements in your network plans.
- Detailed Site Information tables. While all agencies have included site information tables, often information is missing, or the incorrect type of information is provided. See attachment, and specific examples listed below.
  - Monitoring objective, site type, monitor type, method code parameter code and POC should be included for each monitor.
  - Sampling Frequency for PM<sub>2.5</sub> and PM<sub>10</sub> sites. Sampling frequencies should be determined in accordance with 40 CFR 58. For easy reference, EPA is enclosing attachments that describe how sampling frequency should be determined for each site.
  - PM<sub>2.5</sub> information. When filling out the detailed site information tables, please ensure that your PM<sub>2.5</sub> information is correct. This includes information clearly identifying a method code, FEM/FRM/non-FEM/non-FRM status, which monitors are meeting collocation requirements, continuous versus filter-based instruments, FEM/FRM/non-FEM/non-FRM, and whether data are comparable to the NAAQS. If an FRM or FEM monitor is designated as not comparable to the NAAQS (specified by a non-regulatory monitor type in AQS), regulatory or non-regulatory please provide adequate justification for choosing this monitor type. (see attachments).

In addition, there have been many changes to monitoring requirements since 2007. The specific requirements as of February 2012 are included in the CFR Elements appendix (attached). General changes include new:

- NCore requirements (stations operational by January 1, 2011)
- Pb requirements: source-oriented (1.0 tpy or greater – monitors by January 1, 2010; 0.50 tpy – monitors by December 27, 2011), airport study monitors (by December 27, 2011), at urban NCore stations (population of 500,000 or greater – by January 1, 2012)
- SO<sub>2</sub> requirements (operational by January 1, 2013)
- NO<sub>2</sub> requirements (address in July 1, 2012 plan)
- CO requirements: in CBSAs of 2.5 million persons or more (address in July 1, 2014 plan); other CO monitors (address in July 1, 2016 plan)

## Attachments

**Comment [KH2]:** Elfego suggests changing this header to “Rucurring Deficiencieis in Annual Network Plans” – which seems too harsh – but I agree that I don’t know if specific section Notes makes sense to those outside our discussions. Does this need a header?

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Attached are several documents outlining requirements and providing clarification on specific plan elements. State and local agencies are not required to include the exact tables included in the attachments, however, EPA strongly encourages all agencies to include the tables. Regardless of how the information is presented, agencies must ensure that their network plans include all required information. The appendix provides the regulatory basis for the annual network plan. Agencies are also encouraged to include additional information that describes the ambient air monitoring network. Attachments:

- Outline of CFR Requirements
- Site and monitor type description
- [Minimum monitoring requirements table](#)
- [Detailed site information table](#)
- [Minimum monitoring requirements table](#)
- Sampling frequency information – PM<sub>10</sub> and PM<sub>2.5</sub>
- [PM<sub>2.5</sub> Reference Memos](#)
- Collocation information for PM<sub>10</sub>, PM<sub>2.5</sub>, and Pb
- [PM<sub>2.5</sub> Reference Memos](#)
- [Template for minimum monitoring requirements table](#)
- [Template for detailed site information table](#)
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**Comment [KH3]:** Trying to arrange these somehow – went for a basic info than tools for agencies approach  
Feel free to change back

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### **General Network Plan Overview**

**Comment [KH4]:** Elfego asks if we agreed to delete this

**Submittal date:** States must submit an annual network plan on July 1, 2007 to the Regional Administrator.

**Public Inspection/Comment:** The annual monitoring network plan must be made available for public inspection (website, hardcopy posting in libraries and public offices, and/or newspaper listing) for at least 30 days prior to submission to EPA. Although not required, EPA recommends soliciting comments concurrent with the public inspection period. Evidence of public inspection must be submitted. If an opportunity for public comment had been provided, comments received must be included in the annual network plan submission.

**Types of Monitors to include in plan:** Include establishment and maintenance of an air quality surveillance system that consists of the following:

1. SLAMS
2. FRM
3. FEM
4. ARM
5. NCORE
6. STN
7. PAMS
8. SPM

**Network modifications:** A network plan that proposes SLAMS network modifications including new monitoring sites is subject to the approval of the EPA Regional

Administrator [according to 40 CFR 58.14. If you are requesting approval for modifications as part of your network plan, please include a demonstration of how the criteria in 40 CFR 58.14 are met.](#)

We look forward to your network plan submittals. Please contact myself, Matt Lakin, at 415.972.3851 or [lakin.matthew@epa.gov](mailto:lakin.matthew@epa.gov), or any of my monitoring team staff, should you have any questions, or should you desire a copy of the 2007 memo EPA Region 9 sent regarding network plans.